

Pat Ragland
PO Box 2725
Elizabethtown, KY 42702-2725
Email: patragland@outlook.com

October 21, 2015

Via FOIAonline

Freedom of Information Officer
U.S. Environmental Protection Agency, Region 4


RE: FREEDOM OF INFORMATION ACT REQUEST

Pursuant to the Freedom of Information Act ("FOIA"), 5 U.S.C. § 552, and implementing regulations of the U.S. Environmental Protection Agency ("EPA" or "Agency"), 40 C.F.R. Part 2, I request all records regarding the U.S. Environmental Protection Agency's handling of my August 22, 2015 complaint about developments at "Gaithers Karst Window" in Hardin County Kentucky as: RE: COMPLAINT THAT THE PROPOSED ALTERATIONS TO "GAITHERS KARST WINDOW" WILL VIOLATE THE FEDERAL UNDERGROUND INJECTION CONTROL REGULATIONS (attached). Please include all correspondences, emails, faxes, plans, planning determinations, studies, jurisdictional determinations, applications, permits, permit denials, modifications, inspections, complaints, environmental releases, violations, inquiries, administrative orders, groundwater protection provisions, investigations, etc regarding the environment of the collapsed sinkhole known as "Gaithers Karst Window" located in Hardin County Kentucky with coordinates, 37°39'23.35"N, 85°53'26.28"W.

I understand that there may be fees and costs associated with this request, and I agree to pay any fees or costs up to \$500 (five hundred dollars) associated with making these records available to me. If the costs will be in excess of \$500 (five hundred dollars), please advise me before such costs are incurred.

Please email me any questions you may have at patragland@outlook.com.

Sincerely,


Pat Ragland

Pat Ragland
PO Box 2725
Elizabethtown, KY 42702-2725
Email: patragland@outlook.com

Heather McTeer Toney, Regional Administrator
U. S. Environmental Protection Agency - Region 4
61 Forsyth Street SW
Atlanta, GA 30303-8960

August 22, 2015

RE: COMPLAINT THAT THE PROPOSED ALTERATIONS TO "GAITHERS KARST WINDOW" WILL VIOLATE THE FEDERAL UNDERGROUND INJECTION CONTROL REGULATIONS.

Dear Administrator Heather McTeer Toney:

Proposed developments have designed additional stormwater runoff to be conveyed into the large sinkhole collapse known as "*Gaithers Karst Window*" in violations of the federal Underground Injection Control regulations. The Kentucky Heartland Agricultural Complex development plat¹ shows "VARIABLE PERMANENT DRAINAGE EASEMENT FOR DETENTION" at the location of the large "*Gaithers Karst Window*" collapse. These new sources of contaminated stormwater will adversely impact the local public underground source of drinking water.

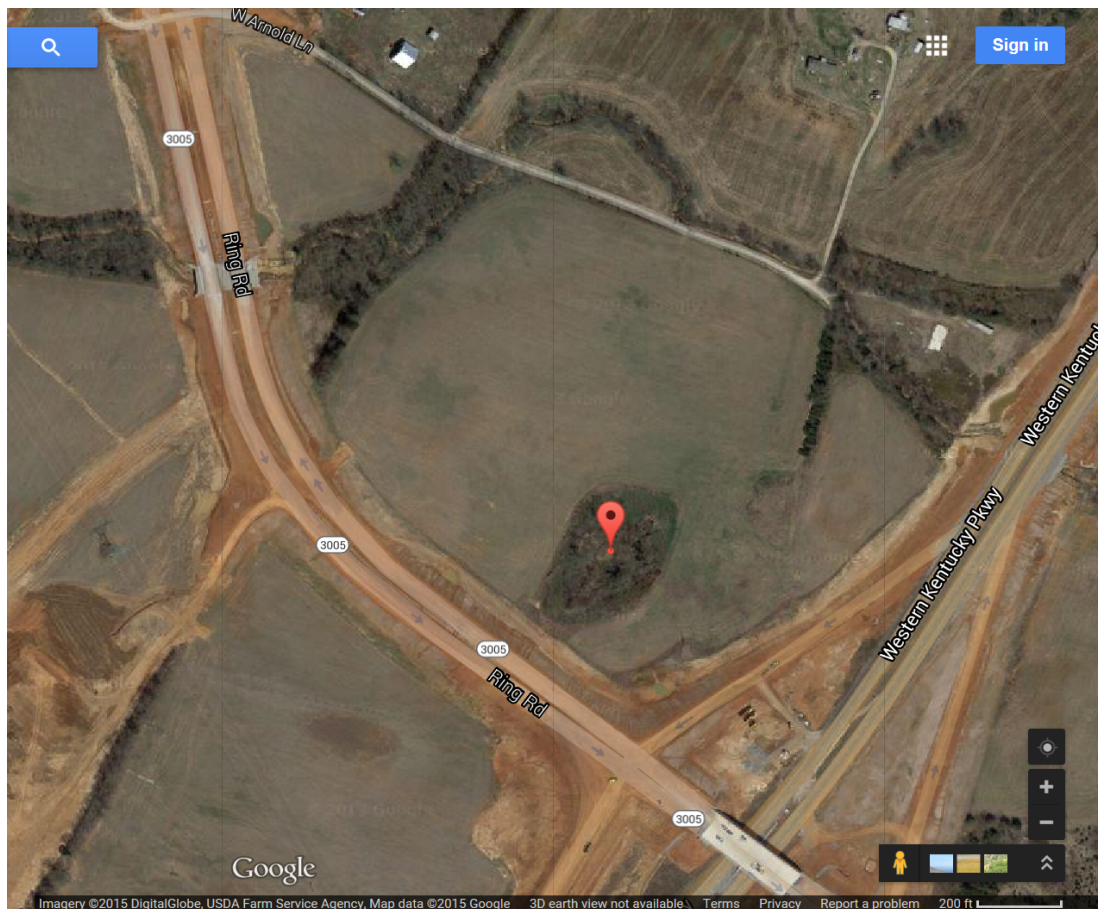
This large sinkhole collapse has been identified as "*Gaithers Karst Window*" collapse by Charles Taylor in the U.S. Geological Survey Water-Resources Investigations Report 96-4254² on page 6 as follows:

¹ Plat 5714 of the Kentucky Heartland Agricultural Complex property is from the Hardin County Clerk's office.
<http://www.hccoky.org/eSearch>

² Taylor, Charles J. "Delineation of ground-water basins and recharge areas for municipal water-supply springs in a karst aquifer system in the Elizabethtown area, Northern Kentucky." USGS Water-Resources Investigations Report (1997): 22, <http://pubs.usgs.gov/wri/1996/4254/report.pdf> [accessed 2/10/2015]

Where solution occurs above an active groundwater conduit and part of the conduit is unroofed by development of a cover-collapse sinkhole, the subsurface stream may be exposed to view. This type of solutional feature is a karst window. Two karst windows are present in the study area (fig. 3): (1) the Gaithers karst window, about 1 mi east of Dyers Spring, ...

This large "Gaithers Karst Window" collapse is plainly visible on GIS imagery such as [Google Maps](#) by simply typing in its coordinates, 37°39'23.35"N, 85°53'26.28"W and switching to "Satellite view" as shown below.



Google Map shows the large collapse of "Gaithers Karst Window" as the wooded area around Google's red location symbol.

By the following federal regulations the proposed manmade alterations of this sinkhole to accept additional stormwater will make the "Gaithers Karst Window" collapse an "*improved sinkhole*" Class V Underground Injection Control Well.

40 CFR § 144.3 Definitions.

Improved sinkhole means a naturally occurring karst depression or other natural crevice found in volcanic terrain and other geologic settings which have been modified by man for the purpose of directing and emplacing fluids into the subsurface.

Well means: A bored, drilled, or driven shaft whose depth is greater than the largest surface dimension; or, a dug hole whose depth is greater than the largest surface dimension; or, an improved sinkhole; or, a subsurface fluid distribution system.

40 CFR § 146.5 Classification of injection wells.

(e) Class V. Injection wells not included in Class I, II, III, or IV. Specific types of Class V injection wells are also described in 40 CFR 144.81. Class V wells include:

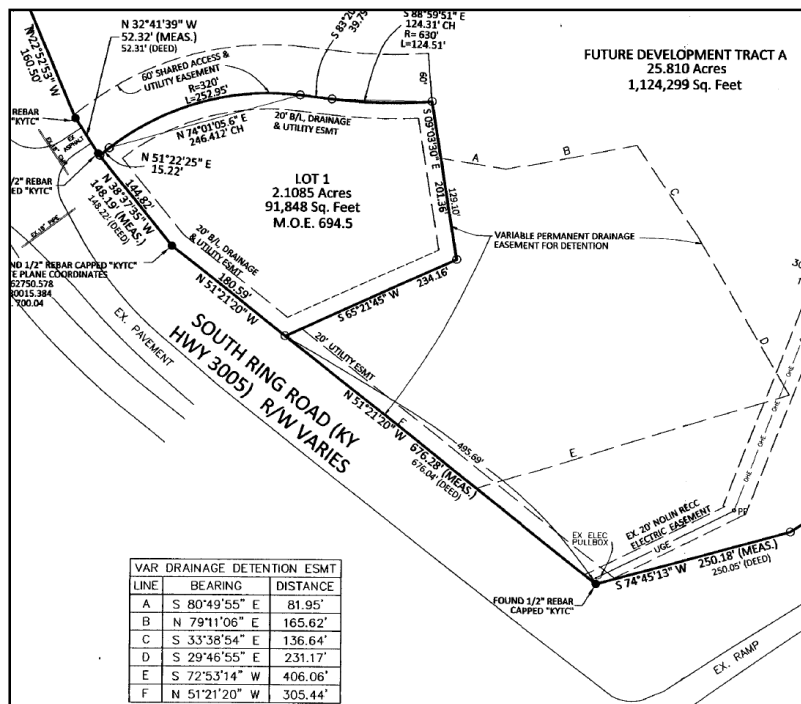
- (4) Drainage wells used to drain surface fluid, primarily storm runoff, into a subsurface formation;

Therefore the responsible parties altering the drainage pattern into this sinkhole are required to obtain registration and permitting by the U.S. Environmental Protection Agency for a Class V Underground Injection Well.

The proposed developments will increase the amount of impervious surface area consequently creating an increase in stormwater runoff. The proximity to the "Gaithers Karst Window" collapse of the proposed Hardin County Cooperative Extension Service Office development site and of the proposed Farm Credit Mid-America development site are shown on the following two images below. This "*improved sinkhole*" will provide little or no removal of contaminants from stormwater prior to reaching the public underground source of drinking water. As you would be well aware stormwater runoff from roads and parking lots are known to contain hydrocarbon lubricants, antifreeze, hydraulic fluids, asphalt surface leachate, deicing salts, cyanide, heavy metals, nitrates, etc.





The Hardin County Cooperative Extension Service acquisition of property for their Kentucky Heartland Agricultural Complex is shown by the excerpt of the first deed below.



An excerpt from Plat 5714³ shows the "VARIABLE PERMANENT DRAINAGE EASEMENT FOR DETENTION" of the Kentucky Heartland Agricultural Complex will be at the location of the "Gaithers Karst Window" collapse between the Western Kentucky Parkway exit ramp and Ring Road. The Lot 1 of the Kentucky Heartland Agricultural Complex has been purchased by Farm Credit Mid-America as shown by the excerpt of the second deed below.

³ Plat 5714 of the Kentucky Heartland Agricultural Complex property is from the Hardin County Clerk's office.
<http://www.hccoky.org/eSearch>

	
Doc ID: 009393460005 Type: DEE	
Kind: DEED	
Recorded: 04/10/2014 at 10:58:16 AM	
Receipt#: 2014-00004164	
Page 1 of 5	
Fees: \$23.00 Tax: \$1,600.00	
Hardin County Clerk	
Kenneth L. Tabb Clerk	
BK 1393 PG 795-799	
GRANTOR: Joseph Gray Janes Living Trust and Jean Lawson Janes Living Trust	
GRANTEE: Hardin County Cooperative Extension Service District	
PVA # 204-00-00-009	
ACV: \$1,600,000.00	
PROPERTY ADDRESS: Arnold Lane, Elizabethtown, Kentucky 42701	
LEGAL DESCRIPTION: Metes and Bounds:	
D E E D	
THIS DEED made and entered into this the 10th day of April, 2014, by and between	
Joseph Gray Janes Living Trust and Jean Lawson Janes Living Trust, whose address is	
<u>206 Tree Valley Road, Elizabethtown, Ky 42701</u> , Parties of the First Part, and	
Hardin County Cooperative Extension Service District, whose address is 201 Peterson Drive,	
Elizabethtown, Kentucky 42701, (which address shall be the in-care-of address to which the	
property tax bill for the current year may be sent) Party of the Second Part;	

	
Doc ID: 009666100004 Type: DEE	
Kind: DEED	
Recorded: 02/10/2015 at 10:48:58 AM	
Receipt#: 2015-00001391	
Page 1 of 4	
Fees: \$20.00 Tax: \$325.00	
Hardin County Clerk	
Debbie Donnelly Clerk	
BK 1405 PG 990-993	
GRANTOR: Hardin County Cooperative Extension Service District	
GRANTEE: Farm Credit Mid-America, FLCA, a corporation duly existing and operating	
under an Act of Congress known as the Farm Credit Act of 1971, as amended.	
PVA # 204-00-00-009	
ACV: \$325,000.00	
PROPERTY ADDRESS: Lot 1, of 501 South Ring Road, Elizabethtown, KY 42701	
LEGAL DESCRIPTION: Lot 1 Kentucky Heartland Agricultural Complex.	
D E E D	
THIS DEED made and entered into this the <u>10th</u> day of <u>February</u> , 2015 by and	
between Hardin County Cooperative Extension Service District, whose address is 201	
Peterson Drive, Elizabethtown, KY 42701 Party of the First Part, and Farm Credit Mid-	
America, FLCA, a corporation duly existing and operating under an Act of Congress known	
as the Farm Credit Act of 1971, as amended., whose address is 1601 UPS Drive, Louisville,	
KY 40223, (which address shall be the in-care-of address to which the property tax bill for the	
current year may be sent), Party of the Second Part;	

Both of these deeds are available online from the Hardin County Clerk's office at:

<http://www.hccoky.org/eSearch>

Charles Taylor's 1996 U.S. Geological Survey Water-Resources Investigations Report 96-4254⁴ reported that the groundwater exposed in "Gaithers Karst Window" flows to the public water supply Dyers Spring (Gaithers Station Spring) on page one as follows:

Two springs in southeast Hardin County, Kentucky, Elizabethtown Spring (also known locally as City Spring) and Dyers Spring (Gaithers Station Spring), are used as the primary sources of municipal water for the City of Elizabethtown (fig. 1). About 1.4 Mgal/d is withdrawn from Elizabethtown Spring and about 567 Kgal/d is withdrawn from Dyers Spring during periods of highest consumptive use (Robert Best, Manager, Elizabethtown Water Plant, oral commun., 1995).

and on page fourteen as follows:

The results of these tracing tests indicated that dye-laden ground-water from the injection site was conducted about 0.5 mi to the unroofed ground-water conduit exposed in the Gaithers karst window (Mull and others, 1988b). From there, dye-laden water flowed to Dyers Spring, about 0.75 mi to the west.

Therefore contaminated stormwater discharges and spills into this "improved sinkhole" Class V Underground Injection Control Well will quickly adversely impact the public water intake at the Dyers Spring (Gaither Station Spring). This public water intake is authorized by Water Withdrawal Permit #0123 located just 0.75 mile west of "Gaithers Karst Window" collapse.

Discharges of contaminated stormwater into "Gaithers Karst Window" collapse would be in violation of 40 CFR § 144.12.

40 CFR § 144.12 Prohibition of movement of fluid into underground sources of drinking water.

(a) No owner or operator shall construct, operate, maintain, convert, plug, abandon, or conduct any other injection activity in a manner that allows the movement of fluid containing any contaminant into underground sources of drinking water, if the presence of that contaminant may cause a violation of any primary drinking water regulation under 40 CFR part 142 or may otherwise adversely affect the health of persons. The applicant for a permit shall have the burden of showing that the requirements of this paragraph are met.

⁴ Taylor, Charles J. "Delineation of ground-water basins and recharge areas for municipal water-supply springs in a karst aquifer system in the Elizabethtown area, Northern Kentucky." USGS Water-Resources Investigations Report (1997): 22. Available from the US Geological Survey at: <http://pubs.usgs.gov/wri/1996/4254/report.pdf> [accessed 2/10/2015]

(b) For Class I, II, III, and VI wells ...

(c) For Class V wells, if at any time the Director learns that a Class V well may cause a violation of primary drinking water regulations under 40 CFR part 142, he or she shall:

(1) Require the injector to obtain an individual permit;

(2) Order the injector to take such actions (including, where required, closure of the injection well) as may be necessary to prevent the violation. For EPA administered programs, such orders shall be issued in accordance with the appropriate provisions of the SDWA; or

(3) Take enforcement action.

(d) Whenever the Director learns that a Class V well may be otherwise adversely affecting the health of persons, he or she may prescribe such actions as may be necessary to prevent the adverse effect, including any action authorized under paragraph (c) of this section.

(e) Notwithstanding any other provision of this section, the Director may take emergency action upon receipt of information that a contaminant which is present in or likely to enter a public water system or underground source of drinking water may present an imminent and substantial endangerment to the health of persons. If the Director is an EPA official, he must first determine that the appropriate State and local authorities have not taken appropriate action to protect the health of such persons, before taking emergency action.

This increased groundwater flow will naturally accelerate the processes of karst collapses. The large size of "*Gaithers Karst Window*" collapse proves the presence of large karst voids that are starting to collapse. Ground failure of areas underlain by karst voids threaten any kind of building or infrastructure development. Karst collapses will release various unknown contaminants from any developments and from sewer lines into the public underground source of drinking water.

In addition to the necessity to protect the public drinking water supply, as a local landowner of a farm on W. Arnold Lane it is imperative that the aquifer under my property be protected from contamination.

The U.S. Environmental Protection Agency must prohibit the "*Gaithers Karst Window*" collapse from being used as an "*improved sinkhole*" Class V Underground Injection Control Well. The U.S. Environmental Protection Agency must take action to prevent contaminants from developments around the "*Gaithers Karst Window*" collapse to enter the public underground source of drinking water.

Sincerely,



Pat Ragland
Email: patragland@outlook.com

cc: Gina McCarthy, Administrator, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, (1101A), Washington, D.C. 20460, by Priority Mail Express EK 558347486US

Peter C. Grevatt, Director, Office of Ground Water and Drinking Water, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, (4601M), Washington, DC 20460, by Priority Mail Express EK 558347490US

Larry Gottesman, National Freedom of Information Officer, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, (2822T), Washington, DC 20460, by Priority Mail Express EK 558347509US